

## **REMARKS**

The foregoing amendments are without prejudice and do not constitute an admission regarding patentability. Applicant respectfully requests amendment of the patent application and reconsideration and allowance of the pending claims.

### **I. Objection to the Specification**

The specification has been amended as set forth herein to delete the offending embedded hyperlink(s) or other browser-executable code(s) objected to by the Examiner. Applicant submits that no new matter has been introduced by way of the amendment to the specification. Applicant respectfully requests the objection to the specification be withdrawn as moot.

### **II. Objection to Claim 17**

Claim 17 was objected to as being dependent from a non-elected claim. Applicant submits that claim 17 has been amended in the interest of obtaining swift issuance of a patent to recite an independent claim. Applicants respectfully requests the objection to claim 17 be withdrawn as moot.

### **III. Rejection to Claims 9 and 17 Under 35 U.S.C. § 112, Second Paragraph**

The Examiner has rejected claims 9 and 17 as allegedly indefinite under § 112, ¶ 2. In the interest of obtaining swift issuance of a patent, Applicant has amended claims 9 and 17 to recite determining if the candidate compound impairs MSS4 function, as requested by the Examiner. Applicant submits that no new matter has been introduced by way of the amendment to claims 9 and 17. Specifically, Applicant submits that support for the amendment to the claims is found throughout the specification and claims as originally filed, including, *e.g.*, paragraph [0014] and example 5. Accordingly, Applicant respectfully requests the rejection to claims 9 and 17 be withdrawn as moot.

### **IV. Rejection to Claims 9, 10 and 17 Under 35 U.S.C. § 112, First Paragraph**

#### **A. Written Description Rejection**

The Examiner rejected claims 9, 10, and 17 as allegedly failing to comply with the written description requirement. The Examiner stated that “claims [9]-10, and 17 are drawn to any compound which impairs any PIP5K or MSS4 enzyme function or activity and a composition

comprising any PIP5K or MSS4 inhibitor.” Office Action, page 5. In the interest of obtaining swift issuance of a patent, Applicant has amended claims 9, 10, and 17 of the instant application. Applicant submits that no new matter has been introduced by way of the amendments to claims 9 and 17. Specifically, Applicant submits that support for the amendments to the claims is found throughout the specification and claims as originally filed, including, *e.g.*, original claims 1 and 8. Applicant submits that claims 9, 10 and 17, as amended, are drawn to those compounds identified by the recited steps of claim 9 or 17 that impair fungal MSS4 function or activity.

Accordingly, Applicant submits that the rejections to claims 9, 10 and 17 for allegedly lacking written description be withdrawn as moot.

#### **B. Enablement Rejection**

With respect to enablement, the Examiner stated that the specification is enabling for “an assay system for measuring PIP5K or MSS4 activity or function for identifying a compound which modulate[s] the activity of said PIP5K or MSS4 enzyme.” Office Action, page 6. The Examiner, however rejected the pending claims because the specification allegedly “does not reasonably provide enablement for any compounds which impair any PIP5K or MSS4 enzyme function or activity and a composition comprising said PIP5K or MSS4 inhibitor.” *Id.* As discussed above, in the interest of obtaining swift issuance of a patent, Applicant has amended the subject matter of pending claims 9, 10, and 17 to place the claims in accordance with the subject matter identified by the Examiner as enabling, including subject matter directed to identifying a compound which impairs fungal MSS4 that is identified by the steps of claims 9 or 17. Applicant respectfully requests withdrawal of the rejection on enablement grounds as moot.

#### **IV. Rejection to Claims 9, 10 and 17 Under 35 U.S.C. § 102**

The Examiner rejected claims 9, 10, and 17 as allegedly anticipated by *Miyazaki et al.* under 102(b). For at least the reasons discussed below, Applicant respectfully requests withdrawal of the rejection to claims 9, 10, and 17 under 102(b).

##### **A. *Miyazaki et al.* Do Not Disclose All Elements of Claims 9, 10, and 17**

*Miyazaki et al.* do not disclose all of the elements of amended claims 9, 10 and 17. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil*

*Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); *see also* MPEP § 2131. Moreover, the elements in the alleged prior art reference must be arranged as required by the claim in order to anticipate it. *Id.*

Claim 9, as amended, is directed to a compound which impairs fungal 1-phosphatidylinositol-4-phosphate 5-kinase enzyme (MSS4) function that is identified by screening or testing for compounds that impair MSS4 function, comprising the steps of: a) providing fungal MSS4; b) providing one or more candidate compounds; c) contacting said fungal MSS4 with said one or more candidate compounds; and d) determining if the candidate compound impairs fungal MSS4 function. Claim 17 is directed to a compound that impairs fungal 1-phosphatidylinositol-4-phosphate 5-kinase enzyme (MSS4) function that is identified by screening or testing for candidate compounds that impair MSS4 function, comprising the steps of: a) providing at least one eukaryotic cell that expresses fungal MSS4 under the control of a heterologous promoter; b) providing one or more candidate compounds; c) contacting said at least one eukaryotic cell with said one or more candidate compounds; and d) determining if the candidate compound impairs fungal MSS4 function. Claim 10 is directed to a composition comprising a compound of claim 9 or 17 and at least one pharmaceutically acceptable carrier.

The Examiner asserted that *Miyazaki et al.* allegedly teach that “RabGD1 inhibits MSS4” and that “the assay method comprises contacting RabGD1 with MSS4,” with alleged support in *Miyazaki et al.* at page 334, column 1, paragraph 3. Office Action, page 8. However, *Miyazaki et al.* do not teach the recited steps of identifying a fungal MSS4 compound as recited by claims 9, 10, and 17. In fact, *Miyazaki et al.* do not teach contacting fungal MSS4 with the Examiner’s alleged MSS4 inhibitor (i.e., RabGD1). Rather, *Miyazaki et al.* disclose “[t]he dissociation of [<sup>3</sup>H]GDP from the small G protein to be tested was assayed by measuring the radioactivity of [<sup>3</sup>H]GDP bound to the small G protein after incubation with MSS4, Rab3AGRF, or RabGDI.” *Miyazaki et al.*, page 334, column 1, paragraph 3 (section 2.3) (emphasis added). Thus, contrary to the assertion by the Examiner, *Miyazaki et al.* do not teach at least the step of contacting fungal MSS4 with one or more candidate compounds.

In addition, the Examiner does not appear to dispute that *Miyazaki et al.* do not disclose candidate compounds that impair fungal MSS4 function as recited by claims 9, 10, and 17. In fact,

*Miyazaki et al.* disclose that the MSS4 cDNA “was obtained by a polymerase chain reaction from the rat brain cDNA...” *Miyazaki et al.*, page 334, column 1, paragraph 2 (section 2.2).

Accordingly, for at least the reasons discussed above, Applicant respectfully requests the Examiner withdraw the rejection to claims 9, 10, and 11 under 102(b).

**B. *Miyazaki et al.* Do Not Inherently Anticipate Claims 9, 10, and 17**

The Examiner stated that “[s]ince, *Miyazaki et al.* teach [a] compound which inhibits MSS4 activity, the same compound would inherently have antifungal activity if the fungus comprises said MSS4 gene encoding protein because MSS4 or PIP5K is regarded as [a] stimulator of cell growth by activating MSS4 or PIP5K activity and thereby an inhibitor of MSS4 or PIP5K would inhibit fungal cell growth.” Office Action, page 8. However, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993); MPEP § 2112. That is, “[i]nherency [] may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

*Miyazaki et al.* do not inherently disclose an inhibitor of fungal MSS4 as alleged in the Office Action. According to *Miyazaki et al.*, “Rab GDI slightly inhibited the Rab3A GRF effect on the lipid-unmodified form of Rab3A, but did not affect the MSS4 effect on the same form of Rab3A.” *Miyazaki et al.*, page 335, column 1, paragraph 2 (section 3, Results). Thus, the Examiner’s alleged MSS4 inhibitor (i.e., Rab GDI) does not inevitably and always inhibit rat brain MSS4 function. *See, e.g., SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1343-44 (Fed. Cir. 2005)(requiring the “inevitably and always” standard for inherent anticipation). Accordingly, the Examiner has not established that Rab GDI is an inhibitor of rat brain MSS4, much less its burden to show the claimed subject matter directed to fungal MSS4 is anticipated, either explicitly or inherently, by *Miyazaki et al.* *See* MPEP § 2112 (“The Examiner must provide a rationale or evidence tending to show inherency”). For at least this additional reason, Applicant respectfully requests withdrawal of the rejection under 102(b).

**C. *Miyazaki et al.* Do Not Disclose Fungal MSS4**

The Examiner further stated that it has “disregarded the recited intended uses of the compound in claims 9 and 17” citing MPEP § 2111.02. However, the antifungal nature of the compounds of claims 9 and 17 is not merely an intended use. Rather, compounds that impair fungal MSS4 is recited in the body of claims 9 and 17, and, as discussed above, *Miyazaki et al.* neither explicitly nor inherently disclose compounds that impair fungal MSS4. Accordingly, Applicant respectfully requests withdrawal of the rejection under 102(b) for at least this additional reason.

**CONCLUSION**

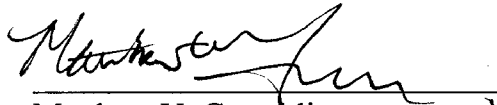
Applicant submits the above amendments and remarks in response to the Office Action dated April 13, 2009, setting a three month shortened statutory period for response. Applicant submits that this response fully addresses the Office Action mailed April 13, 2009 and, that for the reasons set forth herein, the pending claims are in condition for allowance. Applicant believes that the present response is timely filed. If additional fees are due in connection with the present submission, the Commissioner is hereby authorized to charge any fees required to deposit account No. 23-2415, referencing Attorney Docket No. 35813.709.831. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (858) 350-2300.

Respectfully submitted,

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